

What is claimed is:

1. A clean room transportation package for a process chamber kit that has a plurality of differently shaped chamber components, the package comprising:

(a) a first rigid tray having:

a first ledge having a first rim; and

a plurality of first troughs extending outwardly from the first ledge;

(b) a second rigid tray that is detachable from the first tray, the second tray having:

a second ledge having a second rim that couples with the first rim of the first ledge to form a seal therebetween; and

a plurality of second troughs extending outwardly from the second ledge,

wherein a plurality of conformal cells having different internal surface profiles are formed by facing pairs of first and second troughs, the internal surface profile of each conformal cell matching an external surface profile of a chamber component so that movement of the chamber component in its conformal cell is minimized during transportation, and

wherein at least a portion of the first or second tray is substantially transparent so that a state of each chamber component of the process chamber kit may be observed through the substantially transparent portion.

2. A transportation package according to claim 1 wherein the facing first and second troughs have substantially the same internal surface profile and are juxtaposed in mirror relationship to each other.

3. A transportation package according to claim 1 wherein at least one of the first or second trays comprises a rigid sidewall having a height larger than the depth of any of the conformal cells.

4. A transportation package according to claim 3 wherein opposing portions of a sidewall each comprise a handle cut-out.

5. A transportation package according to claim 4 wherein the

sidewalls comprise a set of removable panels that can be coupled together.

6. A transportation package according to claim 1 wherein at least one first trough or second trough has a trough wall that is shaped to exert an inward mechanical bias force to hold a chamber component at a contact point when the component is placed inside the trough.

7. A transportation package according to claim 1 comprising a groove in the rim of at least one of the first or second trays, and a gasket seal within the groove, to form a gas tight seal between the first and second trays.

8. A transportation package according to claim 1 comprising a latch and a latch tab to lock together the first and second trays.

9. A transportation package according to claim 1 wherein at least a portion of the first or second tray is colored according to a color selected from a color code table that having a list of colors and associated process chamber kits.

10. A transportation package according to claim 9 wherein the list of the color code table associates different colors for process chamber kits having identical chamber components but which have been, or will be, used in different processes.

11. A transportation package according to claim 9 wherein the substantially transparent portion is colored.

12. A clean room transportation package for a process chamber kit that has a plurality of differently shaped chamber components, the package comprising:

(a) a first rigid and substantially transparent tray having:

a first frame having a first rim; and

a plurality of first troughs extending outwardly from the first frame;

(b) a second rigid and substantially transparent tray that is detachable from the first tray, the second tray having:

a second frame comprising having a second rim; and

a plurality of second troughs extending outwardly from the second frame, the second troughs having substantially the same internal surface profile as the first troughs;

(c) a gasket seal in a groove in the first or second frames; and

(d) a latch on the first tray and a latch tab on the second tray,

wherein when the first and second trays are coupled together and the latch is closed over the latch tab, a gas tight seal is formed between the two trays;

wherein a plurality of conformal cells having different internal surface profiles are formed by facing pairs of first and second troughs, the internal surface profile of each conformal cell matching an external surface profile of a chamber component so that movement of the chamber component in its conformal cell is minimized during transportation, and

wherein the substantially transparent first or second trays allow a state of each chamber component of the process chamber kit to be observed therethrough.

13. A transportation package according to claim 12 wherein at least one of the first or second trays comprises a rigid sidewall having a height larger than the depth of any of the conformal cells, the sidewall comprising a set of removable panels that are coupled together.

14. A transportation package according to claim 13 wherein opposing portions of a sidewall each comprise a handle cut-out.

15. A transportation package according to claim 12 wherein at least one first trough or second trough has a trough wall that is shaped to exert an inward mechanical bias force to hold a chamber component at a contact point when the component is placed inside the trough.

16. A transportation package according to claim 12 wherein at least a portion of the first or second trays is colored according to a color selected from a color code table that having a list of colors and associated process chamber kits.